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EXAMINER	
NGUYEN, DUSTIN	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,655	ITO, HIDETAKA	
	Examiner	Art Unit	
	Dustin Nguyen	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 18 are presented for examination.

Response to Arguments

2. Applicant's arguments filed 02/06/2006 have been fully considered but they are not persuasive.

3. As per remarks, Applicants' argued that (1) claim 3 is definite under 35 ***USC § 112*** and that claim 3 recites switching from the bypassing PVC connection to the currently used PVC connection, and not from the currently used PVC connection to the currently used PVC connection, as alleged by the Examiner.

4. As to point (1), Examiner agrees with the Applicants that claim 2 recites the limitation of switching from the currently used PVC connection to the bypassing PVC connection when the trouble has occurred with the currently used PVC connection. After switching over to the bypassing PVC connection, the bypassing PVC connection becomes the currently used PVC connection and the troubled PVC connection becomes the previous used PVC connection. On the other hand, as recited in claim 3, while the bypassing PVC connection is used [i.e. which is the currently used PVC connection], it is detected that the currently used PVC connection [i.e. which is the bypassing PVC connection] has been released through the corresponding

controlling connection, then each of the exchanges switches the operative PVC connection [i.e. which is the bypassing PVC connection] to the currently used PVC connection [i.e. which is the bypassing PVC connection]. So it is not clearly explain why the switching control method would switch from the bypassing PVC connection to the same bypassing PVC connection if that bypassing PVC connection has been released. Therefore, claim 3 remains rejected for indefinite under ***35 USC § 112.***

5. As per remarks, Applicants' argued that (2) Yamada does not disclose or suggest setting a plurality of PVC connections and individually corresponding controlling connections between two exchanges of a communication network.

6. As to point (2), Yamada shows a PVC connection [i.e. lines X] and the corresponding controlling connection [i.e. the control PVC connection for detection of a failure] [Figures 1; and paragraphs 0041]. Yamada also shows plurality of PVC connections and the corresponding controlling connections [i.e. lines X and Y] [Figures 10 and 25].

7. As per remarks, Applicants' argued that (3) Yamada does not disclose controlling connections that are set by an operation administration and maintenance function as recited in claim 4.

8. As to point (3), Yamada discloses the above limitation [i.e. maintenance console sends a request or command for switching connection] [Figures 7 and 8, paragraphs 0067 and 0074].

9. As per remarks, Applicants' argued that (4) Yamada does not disclose that each of exchanges detects trouble through receipt of an alarm indication signal cell from the operation administration and maintenance function as recited in claim 5.

10. As to point (4), it is rejected for similar reasons as disclosed in previous Office Action. Furthermore, Yamada discloses switchover request signal and its format [Figure 5; and paragraphs 0052 and 0059].

11. As per remarks, Applicants' argued that (5) Yamada does not disclose or suggest setting a bypassing PVC connection prepared in advance for bypassing of a master PVC connection and a bypassing side OAM connection corresponding to the bypassing PVC connection between first and second exchanges as recited in claim 7.

12. As to point (5), Yamada discloses connection management table stores backup connection identifiers [i.e. bypassing PVC connection prepared in advance], backup connection QOS, backup connection usage bandwidth and other backup connection attributes [i.e. bypassing side OAM connection] [Figures 2 and 4; and paragraph 0048].

13. As per remarks, Applicants' argued that (6) nowhere does Heeren disclose or suggest if, while the bypassing PVC connection is used, it is detected that the currently used PVC connection has been released through the corresponding controlling connection, then each of the

exchanges switches the operative PVC connection to the currently used PVC connection, as recited in claim 3.

14. As to point (6), Heeren discloses the above limitation [i.e. the system queries to determine whether the primary link has been restored or is otherwise again available, and the virtual circuit backup logic determines the availability of the primary link by detecting if the primary destination circuit is in the alarm state] [159, Figure 5; and col 10, lines 62-col 11, lines 19].

Claim Rejections - 35 USC § 112

15. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

16. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The claim language in the following claims is not clearly understood:

I. As per claim 3, it is not clearly explain because the switching of currently used PVC connection to the currently used PVC connection when PVC connection has been released will not result in any switching of PVC connections.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

18. Claims 1, 2, 4, 5, 7, 9-13, 15, 16 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamada et al. [US Patent Application No 2003/0137933].

19. As per claim 1, Yamada discloses the invention substantially as claimed including a PVC switching control method for controlling a PVC connection in a communication network [i.e. monitor connection and switch over to reserve connection in case of failure] [Abstract; and paragraph 0009], comprising:

setting a plurality of PVC connections [i.e. set up plurality of primary connections] [Figures 2 and 3; and paragraphs 0009, 0046 and 0048] and individually corresponding controlling connections between two exchanges of the communication network [i.e. set up the corresponding reserve relay connection] [paragraph 0042];

detecting, by each of the exchanges, occurrence of or release from trouble with a PVC connection through the corresponding controlling connection [i.e. periodic monitor control PVC

at each exchange unit for detection of a line failure] [A2, B2, Figure 13, Abstract; and paragraphs 0009 and 0041]; and

switching an operative PVC connection to another one of the PVC connections in response to a result of the detection [i.e. switch the connection over to reserve connection in the event of a line failure] [A4, Figure 3; Abstract; and paragraphs 0008-0010].

20. As per claim 2, Yamada discloses wherein, if while one of the PVC connections is used as a currently used PVC connection, it is detected from the corresponding controlling connection that trouble has occurred with the currently used PVC connection, then each of the exchanges switches the operative PVC connection to another one of the PVC connections as a bypassing PVC connection [i.e. at each exchange unit, switch over to reserve connection in event of line failure] [Abstract, paragraphs 0009 and 0011].

21. As per claim 4, Yamada discloses wherein the controlling connections are set by an operation administration and maintenance function [paragraph 0006].

22. As per claim 5, Yamada discloses wherein each of the exchanges detects trouble through receipt of an alarm indication signal cell from the operation administration and maintenance function over one of the controlling connections [paragraph 0005].

23. As per claim 7, it is rejected for similar reasons as stated above in claim 1. Furthermore, Yamada discloses set a master PVC connection [i.e. set primary line connections] and set a

bypassing PVC connection [i.e. set reserve line connections] [Figures 2 and 4; and paragraphs 0046 and 0048].

24. As per claim 9, Yamada discloses wherein a plurality of repeating exchanges are connected on a route of the bypassing PVC connection and a connection for forming the bypassing PVC connection is set in each of the repeating exchanges [i.e. plurality of exchange unit] [paragraph 0159].

25. As per claim 10, Yamada discloses wherein each of the first and second exchanges designates a connection set in advance and signals a cell to a neighboring one of the plurality of repeating exchanges through the designated connection [i.e. the connections are set in advance in each exchange unit] [paragraphs 0119, 0142 and 0159].

26. As per claim 11, it is rejected for similar reasons as stated above in claim 1.

27. As per claim 12, it is rejected for similar reasons as stated above in claims 4-6.

28. As per claim 13, it is rejected for similar reasons as stated above in claim 2.

29. As per claims 15 and 16, it is rejected for similar reasons as stated above in claim 4 and 5.

30. As per claim 18, it is rejected for similar reasons as stated above in claim 7.

Claim Rejections - 35 USC § 103

31. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

32. Claims 3, 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. [US Patent Application No 2003/0137933], in view of Heeren et al. [US Patent No 6,311,288].

33. As per claim 3, Yamada does not specifically disclose wherein, if, while the bypassing PVC connection is used, it is detected that the currently used PVC connection has been released through the corresponding controlling connection, then each of the exchanges switches the operative PVC connection to the currently used PVC connection. Heeren discloses wherein, if, while the bypassing PVC connection is used, it is detected that the currently used PVC connection has been released through the corresponding controlling connection, then each of the exchanges switches the operative PVC connection to the currently used PVC connection [i.e. restore the communication from the alternate path to the primary path] [Abstract; and col 3, lines 50-57]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Yamada and Heeren because Heeren's teaching of

restoring PVC connection would allow system to return to its original stage so that system resource such as backup PVC connection can be reused for other purposes.

34. As per claim 8, it is rejected for similar reasons as stated above in claim 3.

35. As per claims 14, it is rejected for similar reasons as stated above in claim 3.

36. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. [US Patent Application No 2003/0137933], in view of Nagata et al. [US Patent No 6,181,680].

37. As per claim 6, Yamada does not specifically disclose wherein each of the exchanges detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over one of the controlling connections. Nagata discloses wherein each of the exchanges detects trouble through failure to receive a continuity check cell from the operation administration and maintenance function over one of the controlling connections [col 2, lines 7-31; and col 5, lines 30-38]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Yamada and Nagata because Nagata's teaching of continuity check cell would allow to monitor the performance of a connection to quickly locate failure of a communication path.

38. As per claim 17, it is rejected for similar reasons as stated above in claim 6.

39. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached at (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dustin Nguyen

Examiner

Art Unit 2154

John Follansbee
SPE 2154